8. SAN FRANCISCO BAY TO POINT ST. GEORGE, CALIFORNIA

(1) **Chart 18010.**–This chapter describes Bodega Bay, Tomales Bay, Noyo River and Anchorage, Shelter Cove, Humboldt Bay, and numerous other small coves and bays. The only deep-draft harbor is Humboldt Bay, which has the largest city along this section of the coast, Eureka. The other important places, all for small craft, are Bodega Harbor, Noyo River, Shelter Cove, and Crescent City Harbor. The coast is rugged and often mountainous, with many detached rocks. The principal dangers, all marked, are Blunts Reef, Redding Rock, and St. George Reef.

(2) **COLREGS Demarcation Lines.**–The lines established for this part of the coast are described in **80.1144 through 80.1152, chapter 2.**

(3) **Weather, San Francisco Bay to Point St. George**.–Winter storms and a strong spring pressure gradient between the subtropical high and the Aleutian Low make these two seasons very windy. Speeds of 20 to 30 knots occur 15 to 20 percent of the time. Gales occur about 5 percent of the time off Point Arena and N of Cape Mendocino. Fronts and storms cause varying wind directions, but since many lows pass well offshore and to the N, winds are often out of a Southerly direction. Strong winds inhibit radiation or winter fog formation. It is most likely S of Eureka in the early morning after a night of clear skies and light winds. At times, this type of fog can plague Humboldt Bay. S winds help keep winter temperatures mild for these latitudes. Daytime highs in the midfifties (11.7° to 13.9°C) and nighttime lows around 40°F (4.4°C) are common; this compares with highs in the upper thirties (3° to 4°C) and lows in the midtwenties (-5° to -2.8°C) along the East Coast. The storms that pass near or through the area make winter the rainy season. December through January is the height of the season, and precipitation of 0.1 inch (2.54 mm) or more can be expected on about 10 to 11 days per month S of Cape Mendocino and on up to 20 days to the N. Snow falls occasionally along this N coast.

(4) Winds in spring are more variable than in winter, as the subtropical high builds and the Aleutian Low shrinks. The change takes place gradually from N to S. NW through N winds become more common while S winds are not quite so prevalent. With the decrease in storm activity, rain falls on only about 6 or 7 days per month. Temperatures rise by about 4° or 5°F (-15.6° or -15.0°C) over winter averages by April. Visibilities are at their best during March and April. The pressure gradient keeps strong winds frequent.

(5) By summer, the high has taken control along this coast. However, S winds continue to occur frequently in the N. NW through N winds are most common and are reinforced by the sea breeze. Wind speeds of 20 to 30 knots occur 10 to 20 percent of the time, attesting to this reinforcement. They are most likely N of Cape Mendocino, where gales occur 5 to 10 percent of the time. These speeds do not inhibit the formation of advection fog, which plagues the area from July through September. Visibilities drop below 1 mile (2 km) on about 10 to 15 days per month S of Point Delagada and 5 to 10 days per month to the N. Fog signals fill the air 30 to 50 percent of the time during August; the worst month. At coastal stations, visibilities drop below 0.5 mile (0.9 km) on 10 to 20 days per month. Fog is particularly dangerous in shoal-ridden Humboldt Bay. Point Reyes and Point Arena are the foggiest spots, while Point St. George appears to be the least foggy. Fog and low stratus often blanket the waters around Point Reyes for weeks at a time, permitting little sunshine. As a result, Point Reyes has close to the lowest average midsummer temperature of any observing site in the United States. In general along the coast, daytime temperatures average in the low to midsixties (16.7° to 19.4°C), while nighttime lows drop into the low fifties (11° to 12° C). This compares with an average July high of 85°F (29°C)and a low of 67° F (19°C) in New York. Rain is of little concern.

(6) Autumn brings a gradual return to winter conditions. Fog becomes less frequent. This is a gradual change in sheltered regions like Humboldt Bay, where radiation fog is likely. Temperatures fall off by 2° or 3°F (-17.2° or -16.7°C) on the average by October. Winds become a mix of S and N, with N gaining the edge, as fall turns toward winter. Gales are infrequent, and winds blow 20 to 30 knots 10 to 15 percent of the time.

(7) **Charts 18640, 18643.–**From Point Reyes, the coast trends in a general N direction for 10 miles as a broad white sand beach backed by high grassy sand dunes, and then curves NW for 6 miles in high yellow cliffs, terminating in **Tomales Point.** The large white building at the radio station, 7 miles NE of Point Reyes, is prominent.

(8) The **Gulf of the Farallones National Marine Sanctuary** has been established to protect and preserve the marine birds and mammals, their habitats, and other natural resources in the waters surrounding the Farallon Islands and Point Reyes, and to ensure the continued availability of the area as a research and recreational resource. The sanctuary encompasses the waters off Bodega Head and Point Reyes, and the waters surrounding Farallon Islands. The sanctuary includes Bodega Bay but not Bodega Harbor. Recreational use of the area is encouraged. (See **15 CFR 922,** chapter 2, for limits and regulations.)

(9) **Bodega Bay,** a broad opening between Tomales Point and Bodega Head, affords shelter from NW weather at its N end, but is dangerous in S or W weather. The summit of **Bodega Head** is rounding and grassy, with steep rocky cliffs on the S and W ends. Low **Bodega Rock** and foul ground extend from 0.2 to 0.7 mile SE of the S face of Bodega Head.

(10) **Bodega Marine Life Refuge** is just north of Bodega Head. Its sea perimeter begins at 38°18'40"N., 123°04'04"W. and extends offshore around **Mussel Point** to 38°19'23"N., 123°04'22"W. The refuge extends from the shoreline, at the line of mean high water (tide), a distance of 1,000 feet offshore. Within these perimeters all marine plants and invertebrates are protected. Established by an act of the California legislature in 1965, the refuge is managed by the University of California at Davis.

(11) **University of California Bodega Marine Laboratory is on Horseshoe Cove** about 1.3 miles NW of Bodega Head Light. Two large white buildings at the site are reported to be prominent and lighted at night.

(12) **Bodega Head Light** (38°18.0'N., 123°03.2'W.), 110 feet above the water, is shown from a post with a red and white diamond-shaped daymark on the SE end of Bodega Head.

(13) Lighted buoys mark the entrance to Bodega Bay.

(14) **Danger**.–In good weather small boats having local knowledge sometimes use the passage between Bodega Head and Bodega Rock. The passage is unsafe whenever breakers from heavy ground swells reduce the width of the passage. Large breaking waves can occur inside the 30-foot depth contour line

NW and SW of Bodega Rock. The safest part of the passage between Bodega Head and Bodega Rock is along the deeper part of the passage. When the width of the passage is reduced by breakers, mariners entering Bodega Bay should pass S of Bodega Harbor Approach Lighted Buoy BA.

(15) **COLREGS Demarcation Lines.**–The lines established for Bodega and Tomales Bays are described in **80.1144**, chapter 2.

(16) **Tomales Bay** enters the S part of Bodega Bay E of Tomales Point, and extends SE for 12 miles with an average width of 0.5 mile. The channel with depths of 3 to over 10 feet is marked by buoys and daybeacons for about 4 miles to deeper water inside the bay. The shoals and channels within the bay are subject to continual change, local knowledge is advised. An unmarked rock covered 10 feet is near the center of the bay, 0.8 mile SE of Pelican Point in about 38°10'47"N., 122°55'08"W.

(17) **The entrance bar is dangerous and should not be attempted by strangers.** A 6-knot current may be encountered on a spring tide at the entrance to the bay. The shallow area on the entrance bar frequently becomes rough, and it is reported that the sudden appearance of breakers in a calm sea is common. Because such waves appear with little warning, they are called "sneaker waves." These waves occur primarily during the ebb tide, but the entire bar area can become rough owing to strong afternoon winds. Boatmen should plan to leave the area before the tide turns or be prepared to remain outside until the rough water subsides, or to go to another harbor such as Bodega.

(18) Fish, clams, mussels, and oysters are taken from Tomales Bay by commercial and sport fishermen. Oyster farms occupy large sections of tide flats south of Toms Point. A small-craft facility on the bay can make hull and engine repairs and is equipped with a travel lift and a crane, each capable of handling craft up to 15 tons. Long piers used by sport fishermen extend out into the bay at several places. Berths with electricity, gasoline, water, ice, winter boat storage, marine supplies, and launching ramps are available.

(19) Tomales Bay is part of the Point Reyes/Farallon Islands National Marine Sanctuary.

(20) **Bodega Harbor,** in the N part of Bodega Bay, is an important commercial fishing base and, in season, an active sports fishing and recreation harbor. During salmon season more than 500 fishing craft either anchor just outside in the shelter of the N part of the bay or dock at the numerous marinas inside the harbor.

(21) A Federal project provides for a 12-foot channel, protected by entrance jetties, which leads from Bodega Bay to facilities along the N and NE sides of the harbor at the town of Bodega Bay. The channel has a turning basin just inside the entrance, at the N end of the harbor, and along the NE side of the harbor. In April 1992, the controlling depths were 8½ feet to the lower turning basin; thence in October 1996, depths in the basin were 6½ to 12 feet in the E half and 11 to 12 feet in the W half, thence 8½ feet (10 feet at midchannel) to the upper basin at the north end of the harbor with 11 feet in the basin, thence 11 feet (12 feet at midchannel) along the NE side of the town to the basin at the extreme inner end of the channel with 4 to 12 feet in the basin. The channel is marked by buoys, daybeacons, and lights; lighted ranges also mark the channel from the entrance to the turning basin at the N end of the harbor.

(22) In October 1986, a sunken wreck was reported in the NW part of the turning basin along the NE side of the harbor in about 38°19'33"N., 123°02'28"W.

(23) Transient berths with electricity, gasoline, diesel fuel, ice, water, and some marine supplies and provisions can be obtained in the harbor. The marina at Spud Point on the W side of the harbor has the largest lift in the area, which can handle boats up to 20 tons. Hull, engine, and electronic repairs, launching ramps, and winter dry and wet storage are available in the harbor. A channel marked by private buoys and a light, leads from the main channel just SW of the outer turning basin to a marina at the NW side of the harbor.

(24) **Bodega Bay Coast Guard Station** is on the E side of the channel, 0.8 mile above the entrance.

(25) **Chart 18640.**–The coast from Bodega Head for 52 miles to Point Arena trends in a general NW direction. There are some dangers, but they do not extend over a mile offshore, and in thick weather the 30-fathom curve may be followed with safety. In the summer the rocks are generally marked by kelp, which extends in some cases to the 10-fathom curve, but during the winter gales much of the kelp is torn away.

(26) In clear weather the mountains may be readily seen, and at times are visible when the lower land is shut in by haze or fog. In thick weather soundings should be taken frequently, as the currents are extremely irregular both in direction and velocity.

(27) Protection from the prevailing NW winds of summer may be had at several places, but there is no shelter from the winter winds, which are usually accompanied by a heavy W swell.

(28) N of Bodega Head, the cliffs are about 200 feet high for 2 miles, and then are succeeded by a broad sand beach 2 miles long backed by sand dunes 120 feet high. From this point the coast N consists of abrupt rocky cliffs, broken by gulches, to the mouth of the Russian River, 10 miles N of Bodega Head.

(29) Numerous rocks, 20 to 130 feet high, are within 0.3 miles of the shore, but some extend as much as a mile offshore. **Gull Rock,** 100 feet high, is 1.7 miles SE of the mouth of Russian River and 0.3 mile offshore. About 0.5 mile NW of Gull Rock and 400 yards offshore is a large arched rock, 85 feet high, with a flat top. This is the largest arched rock on this part of the coast.

(30) **Duncans Landing,** 6 miles N of Bodega Head, is a fair small-boat landing in NW weather.

(31) The spit making out from the S point of **Russian River** has been partially reinforced by a short rock jetty, but the mouth of the river is closed by a shallow bar. The bold sharp point immediately to the S of the river appears as an island from the S; it is connected to the mainland by a roadway. Many summer resorts are on the shores of Russian River; at the settlement of **Jenner** there is a landing. Gasoline and water can be obtained nearby.

(32) **Ross Mountain,** 3 miles inland and N of Russian River, is the highest knob on the ridge. A few clusters of trees are near its summit; the slopes are bare of trees and the gulches are wooded.

(33) From Russian River for 6.5 miles to Fort Ross Cove, the coast is high, consisting of bare steep spurs from Ross Mountain. **Sunken Reef** extends 0.8 mile from shore 4.5 miles NW of Russian River; it is marked by a bell buoy.

(34) **Fort Ross Reef,** 5.7 miles NW of Russian River and nearly 1 mile SE of Fort Ross Cove, consists of pinnacle rocks 35 feet high, 600 yards offshore, and connected with the beach by a reef which is partially marked by kelp.

(35) **Fort Ross Cove,** 15.5 miles N of Bodega Head and 33 miles N of Point Reyes, affords good shelter in NW weather. The holding ground is poor, and the anchorage is constricted by a rock that uncovers in the middle of the cove and a rock about 50 yards

N of it that is covered 14 feet. The cove is divided into two bights, the W one being slightly the larger. The anchorage is suitable for small vessels only, and if used by strangers should be entered with caution.

(36) **Fort Ross** was first settled by the Russians in 1812, and the old Russian church is still standing. The buildings have been restored, and the area is now a State Historical Monument. There are no landing facilities.

(37) From Fort Ross Cove the coast extends NW and is nearly straight. It is bold and wooded to the crests of the hills which closely approach the coast, and is cut by numerous gulches and bordered by many inshore rocks. The 30-fathom curve is at an average distance of 0.7 mile offshore from Fort Ross Cove for 20 miles to near Gualala River.

(38) **Salt Point,** 5 miles N of Fort Ross Cove, is 35 feet high, very rocky, and bare of trees; it is bordered by outlying rocks for 200 yards. The 30-fathom curve is less than 0.5 mile off this point.

(39) **Fisk Mill Cove,** 2.5 miles N of Salt Point, affords fair shelter for small vessels in NW weather. The bottom is rocky, but there are no hidden dangers.

(40) **Horseshoe Point,** 3 miles N of Salt Point, is a cliff 180 feet high, with a depression of 60 feet immediately behind it. It is a bare of trees; the summit is marked by several projecting rocks.

(41) From Horseshoe Point the coast trends NW for 12.5 miles to Gualala River and consists of cliffs, about 60 feet high, bordered by numerous outlying rocks. The tree line is from 0.1 to 0.5 mile back from the edge of the cliffs.

(42) **Fisherman Bay,** 26.5 miles NW of Bodega Head, is a fair shelter for small craft in NW weather. There are two covered rocks marked by kelp 350 yards off the S point of the bay. There is a general store at the village of **Stewarts Point** on the N side of the bay.

(43) **Gualala Point,** 16 miles SE of Point Arena and 1 mile S of Gualala River, is 42 feet high, about 300 yards offshore, and connected with the bluff by a rocky reef covered with sand. Sand dunes extend behind the bluff for 600 yards.

(44) **Local magnetic disturbance.–**Differences of as much as 8° from normal variation have been reported near Gualala Point, and a difference of as much as 4° near Saunders Reef.

(45) **Gualala River** intersects the coast 15 miles SE of Point Arena. A long sand beach extends a mile S from the mouth. The white hotel building at **Gualala** can be seen from the W and SW.

(46) **Robinson Reef** lies N of the mouth of Gualala River and 1.1 miles N of Gualala Point. It consists of a cluster of 25 or more visible rocks about 600 yards offshore, with a covered rock 70 yards WNW of the outer rock.

(47) **Bourns Landing** is 1.5 miles NW of Gualala River. The anchorage here is exposed and can be used only in the summer. Local knowledge is necessary because the approaches have several covered rocks. Lumber from the Gualala mills was formerly shipped from here.

(48) **Havens Anchorage,** 12 miles SE of Point Arena and 4 miles NW of Gualala Point, offers shelter for small vessels from the prevailing NW winds S of Fish Rocks. The cove is constricted by rocks and ledges extending 250 yards SE from the W head. Strangers should approach the anchorage with caution. During the summer the anchorage is used extensively by fishing boats in NW weather.

(49) **Fish Rocks,** two rocky islets 4.2 miles NW of Gualala Point, are connected at low water with the shore and surrounded by numerous smaller rocks. The outer rock is 150 feet high and the inner 100 feet high and 100 yards offshore. A rock 40 feet high lies 175 yards SE of the outer rock.

(50) **Havens Neck,** 145 feet high and prominent, is 0.6 mile NW of Fish Rocks. It is bare of trees and connected with the bluffs by a narrow neck.

(51) **Gualala Mountain,** 5 miles inland NE of Havens Neck, is heavily wooded and prominent in clear weather. **Sail Rock,** 44 feet high, is a sharp, pyramidal rock 800 yards offshore, 2.8 miles NW of Fish Rocks. From off Point Arena it resembles a small vessel under sail. **Saunders Reef,** 4.5 miles NW of Fish Rocks, is 0.5 mile offshore. It shows several rocks that uncover and is well marked by kelp. Foul ground extends between it and the shore. A lighted gong buoy is 0.4 mile SW of the outer rock and 7.5 miles SE of Point Arena.

(52) **Arena Cove,** 2.5 miles SE of Point Arena, is a slight indentation affording shelter to small vessels in NW weather. The S head is a high yellow cliff that under favorable circumstances is visible for a considerable distance. A wharf is at the head of the cove. A 3-ton hoist is on the wharf; gasoline, diesel fuel, and water are available. Some groceries may be had. A white lookout tower with a red roof on a steel structure is prominent. A lighted bell buoy is 0.6 mile SW from the end of the wharf. To enter, make the lighted bell buoy, then bring the end of the wharf to bear **074°** and stand in on this course. This leads about 150 feet S of a rock covered 16 feet that lies 300 yards 264° from the end of the wharf. In thick weather during the summer in approaching the cove from N or S, the edge of the kelp may be followed which will lead to within 300 yards of the lighted bell buoy. The town of **Point Arena** is on the highway 1 mile E of the landing.

(53) A breaker is reported in a heavy SW swell 0.8 mile WSW of the N point of Arena Cove, and scattered kelp extends almost out to that position.

(54) **Point Arena,** 68 miles NW of Point Reyes, consists of a long level plateau, diminishing in height to the end of the 60-foot-high point. It is the first prominent point N of Point Reyes. The point is bare of trees for about a mile from the shore.

(55) **Point Arena Light** (38°57.3'N., 123°44.4'W.), 155 feet above the water, is shown from a 115-foot white cylindrical tower with black gallery at the extremity of the point. A reef that usually shows breakers extends about 0.6 mile NW from the extremity of the point.

(56) **Arena Rock,** 1.4 miles N of Point Arena Light, is covered 13 feet and shows a breaker except in very smooth weather. A covered rock which rises abruptly from deep water and breaks only in heavy weather is 200 yards N of Arena Rock.

(57) **Caution.–**Vessels approaching Point Arena from N in thick weather are advised to keep outside the 40-fathom curve because Arena Rock is only 0.8 mile inside the 30-fathom curve and shoaling near it is abrupt.

(58) **Chart 18620.–**From Point Arena the coast extends in a general NNW direction for 50 miles and then trends NW for nearly 35 miles to Punta Gorda, thence NNW for 10 miles to Cape Mendocino. The S portion is less bold and rugged than the N portion, and the mountains are neither as high nor as close to the coast. The dangers are all included within the 30-fathom curve, and except for Blunts Reef and the other reefs in the vicinity of Cape Mendocino, do not extend more than a mile offshore. Several submarine valleys with depths greater than 50 fathoms

come within 0.5 to 2 miles of the shore between Point Delgada and Cape Mendocino; the currents are irregular in this area.

(59) From Cape Mendocino to Trinidad Head, the coast trends in a NNE direction for 40 miles and, with the exception of the rocks off False Cape, the dangers are within 0.5 mile of the shore. The land is generally low with sandy beaches, broken by the mouths of the Eel and Mad Rivers and the entrance to Humboldt Bay. The only marked elevations N of False Cape are Table Bluff and Buhne Point.

(60) In clear weather the mountains are good landmarks and can frequently be seen when the lower land is obscured by fog or haze.

(61) Between Point Arena and Cuffey Cove, protection from the prevailing NW winds of summer may be had in a few places, but there is none from S or W.

(62) From Point Arena the cliffs of the point extend 0.5 mile NE to the mouth of **Garcia River,** from which sand dunes and beaches extend N for 4 miles. Beyond this point for 40 miles to **Ten Mile River Beach** the coast is rugged, with high, bold cliffs bordered by numerous outlying rocks.

(63) **Mal Pass** is a steep gulch 5.2 miles N of Point Arena; the bluffs on each side are nearly 280 feet high. **Red Bluff,** 8 miles N of Point Arena, is a prominent reddish 200-foot-high cliff. **Elk Rock,** 8.5 miles N of Point Arena, is 95 feet high and 0.5 mile offshore.

(64) **Chart 18626.–Nose Rock,** 10.3 miles N of Point Arena and 0.7 mile offshore from Elk, is 24 feet high. **Casket Rock,** 700 yards NE of Nose Rock, is the outermost of three large rocks W of a 150-foot cliff fronting the village of **Elk.**

(65) **Cuffey Cove,** 11 miles N of Point Arena, is a small anchorage affording fair shelter in NW winds. **Cuffey Inlet,** just W of the cove, is an excellent anchorage for small boats in N and W weather. Caution is necessary to avoid the many covered and visible rocks in the approaches to the cove and inlet. A small kelp-covered rock that uncovers lies near the center of the entrance to the inlet. The cove is covered with patches of kelp during most of the year.

(66) From Cuffey Cove for 3 miles to **Navarro River,** the coast consists of cliffs 200 feet high, bordered by outlying rocks. Although the mouth of the river is nearly always closed by a bar with only 1 or 2 feet of water over it, the entrance has fair shelter from NW winds. **Navarro Head,** 405 feet high, is on the N bank of the river.

(67) **Chart 18628.–Salmon Point,** the S entrance point to **Whitesboro Cove,** 1.2 miles N of Navarro River, is a treeless cliff 109 feet high. Detached rocks extend W of the point for 0.2 mile, with **Bull Rock,** a covered ledge, usually showing a breaker 0.5 mile NW of the extremity of the point. In a heavy swell, breakers show between it and the visible rocks off the point. Whitesboro Cove is rocky, exposed to NW and W winds, and seldom used as an anchorage.

(68) **Albion Cove,** 16.5 miles N of Point Arena, affords good shelter in N weather. The S point at the entrance rises to a knoll 179 feet high; low rocks extend nearly 500 yards W of the point. The N point is a rocky islet 80 feet high lying close to the point which has the same elevation; both are bare. Small visible rocks lie 200 yards W of the islet, and covered rocks, showing breakers in a moderate swell, extend out more than 500 yards WSW from it. The principal danger in the approach is a covered rock, usually showing a breaker, 250 yards S of the islet. **Mooring Rock,** in about the middle of the cove, is 30 feet high, pyramidal in shape, and marked by a light and a seasonal fog signal; small rocks extend from it to the N shore. A lighted whistle buoy marks the entrance to the cove.

(69) The village of **Albion** is on both high banks of **Albion River.** Several small piers on the river serve the commercial and sport fishermen. Gasoline, diesel oil, water, ice, fishing supplies, and a launching ramp are available. The river is crossed by a fixed highway bridge that has a clearance of 118 feet, 0.1 mile above the mouth.

(70) **COLREGS Demarcation Lines.**–The lines established for the Albion River are described in **80.1146**, chapter 2.

(71) Between Albion Cove and Colby Reef, breakers are seen in a heavy swell nearly 0.5 mile from shore; vessels should not approach closer than 1 mile.

(72) **Stillwell Point,** 1.6 miles N of Albion Cove, is a bold, sharp 190-foot cliff. A 141-foot-high rocky islet lies close inshore on its NW side. A yellow slide is on the S face of Stillwell Point. **Colby Reef,** 0.5 mile offshore W of Stillwell Point, consists of a rocky patch covered 1½ fathoms. Numerous other dangers are just inside the 20-fathom curve along this stretch of coast.

(73) **Little River,** 19 miles N of Point Arena, offers shelter in the entrance cove. The reefs and rocks surrounding the cove are well marked by kelp, and a heavy undertow is felt when in the vicinity of the rocks. The NW shore of the cove is bluff, rocky, and bare of trees for over 0.5 mile. The entrance is marked by a bell buoy, but the channel narrows to 60 yards by covered rocks N of the inner visible rock. The beach area at Little River is a State Park.

(74) The 2-mile coast between Little River and Mendocino Bay is a broad tableland with a seaward face of cliffs, 40 to 60 feet high, bordered by numerous low rocks. The tree line is over 0.5 mile from the cliffs.

(75) **Mendocino Bay,** 21 miles N of Point Arena, affords fair shelter in NW weather, but vessels are obliged to leave in S or W weather. In heavy SW gales the sea breaks clear across the entrance. The S point at the entrance is a rocky, irregular cliff 100 feet high, bordered by numerous rocks extending 150 yards offshore. A knoll 156 feet high is 300 yards inshore from the point. A reef covered 3¼ fathoms extends 500 yards NW of the outermost visible rock. This area should be avoided when there is any swell running. The N point is a broken cliff 60 feet high, bordered by numerous rocks close inshore. A whistle buoy marks the entrance to the bay.

(76) **Big River** enters in the NE part of Mendocino Bay. The town of **Mendocino** is on the N shore of the bay. Water is available.

(77) **Russian Gulch,** 2 miles N of Mendocino, is a small cove occasionally used as an anchorage by small craft with local knowledge as it affords excellent protection. A State Park is at the head of the cove. The concrete arch highway bridge across Russian Gulch should show well from S to W. An important danger is a rock awash 400 yards NW of the S entrance point. A reef covered 1¼ fathoms extends 200 yards SE of the rock.

(78) **Point Cabrillo,** 3 miles N of the town of Mendocino and 24 miles N of Point Arena, is a flat-topped point 50 to 60 feet high terminating seaward in nearly vertical cliffs; numerous low rocks extend offshore over 200 yards, and the 30-fathom curve is

NOYO RIVER

barely 0.2 mile outside of them. The point is bare except for a few trees at the houses near the light.

(79) **Point Cabrillo Light** (39°20.9'N., 123°49.6'W.), 81 feet above the water, is shown from a 47-foot white octagonal frame tower on a dwelling on the point.

(80) From Point Cabrillo the coast trends N for 9 miles to Laguna Point as a nearly straight line of bluffs, with numerous rocks close under the cliffs. It is moderately high, partly wooded to the face of the cliffs, and is broken by several indentations and small streams. The 30-fathom curve is an average distance of 1 mile from shore.

(81) **Caspar Anchorage,** a mile N of Point Cabrillo, is a small cove at the mouth of **Caspar Creek.** Fair shelter, except from W, is afforded, but the anchorage is constricted and seldom used. The village of **Caspar** is on the N bank of the creek near its mouth.

(82) **Chart 18626.–**From Caspar Creek for 4 miles to Noyo Anchorage the coast consists of broken irregular cliffs, 40 to 60 feet high, with numerous rocks extending 400 yards offshore. These are fairly well fringed by kelp, especially in summer.

(83) **Noyo Anchorage,** 5 miles N of Point Cabrillo, affords fair shelter from N or S. The anchorage is limited to an area about 400 yards long and less than 200 yards wide, with depths of 3½ to 6½ fathoms. Buoys mark the entrance to the anchorage.

(84) **Noyo River** enters at the head of Noyo Anchorage. A jetty with a light on its outer end and fog signal 80 yards inshore is on the N side of the entrance, and a small jetty is on the S side of the entrance. A fixed highway bridge with a clearance of 80 feet crosses the river about 300 yards E of mouth. In March 2000, a replacement bridge with a design clearance of 99 feet, was under construction about 0.2 mile above the mouth. The river above the first sharp bend affords excellent protection for small boats. A dredged channel leads between the jetties to **Noyo Basin,** about 0.6 mile above the entrance. In January-February 2002, the controlling depths were 1.2 feet (6.7 feet at midchannel) to Noyo Basin. Greater depths were available with local knowledge above the bridge. Depths of about 10 feet are reported in Noyo Basin. The basin is protected by a breakwater which is marked on its outer end by a light. The river channel is marked by lights, a buoy, and a directional light. **Dolphin Cove** is about 0.5 mile above Noyo Basin. Overhead power cables crossing the river have a least clearance of 80 feet.

(85) Caution is necessary in entering to avoid the reefs and a rock on the S side of the entrance. Heavy W or SW swells form breakers at the entrance to the river; once inside there is good shelter. With W winds and seas, heavy surge is felt in the river as far as Noyo Basin.

(86) **COLREGS Demarcation Lines.–**The lines established for the Noyo River are described in **80.1148**, chapter 2.

(87) The lower section of Noyo River is the principal commercial and sport fishing center of this section of the coast. Many fishing boats are based here. Most of the facilities extend along both banks of the river to about 0.5 mile above the entrance. Water and ice can be obtained at several fishhouses with wharves having depths from 4 to 8 feet alongside. Berths, gasoline, diesel fuel, water, ice, marine supplies, and launching ramps are available at the facilities along the river and at Fort Bragg. Machine

shops and marine railways can handle vessels up to 45 feet for hull and engine repairs. The Noyo River Coast Guard Station monitors VHF-FM channel 16 or can be reached at 707-964-6612. A Coast Guard cutter is stationed on the S bank of the river, just above the fisheries dock. The phone number for the Noyo Mooring Basin Harbormaster is 707-964-4719.

(88) From Noyo River for 0.7 mile to Fort Bragg, the coast consists of rocky cliffs, 40 to 60 feet high, bordered by rocks and sunken ledges extending 100 to 400 yards offshore.

(89) **Fort Bragg,** 30 miles N of Point Arena, is the largest coast town between San Francisco and Eureka. It is near the head of a cove formerly known as **Soldiers Harbor.** The former loading wharf has been removed; lumber is now shipped out by rail and truck. Groceries can be obtained, and minor repairs made.

(90) The cove is constricted by the rocks and ledges extending from both the N and S, leaving only a limited area for small boats to anchor. A rocky reef, partly bare at high water, extends SW from the N head and breaks the force of the swell from NW. In W weather the cove is wide open. Since Noyo River gives better protection, the cove is seldom used.

(91) For 3 miles from Fort Bragg to Laguna Point, the coast is moderately low and rocky and cut by two small streams; the tree line is within 0.2 mile of the beach.

(92) **Laguna Point,** 8.5 miles N of Point Cabrillo, is near the S end of Ten Mile River Beach. It is a small, projecting cliff, 30 feet high, flat-topped, and bare of trees for 600 yards. It is noticeable only when close inshore. A bare reef extends 300 yards NW from the point. The cove immediately N of Laguna Point is exposed and only available for small boats. It affords fair protection in S weather and is occasionally used in winter.

(93) **Bald Hill** (chart 18620), 2.5 miles SE of Laguna Point, is a prominent landmark; its summit and SW slope are bare of timber.

(94) **Chart 18620.**–For 0.5 mile N of Laguna Point the bluffs are low, thence a straight sand beach extends for 3 miles to the mouth of **Ten Mile River.** The beach is backed by sand dunes for 0.5 mile inland; the tree line is about 1.5 miles from the beach. The concrete highway bridge over Ten Mile River is conspicuous from the W.

(95) From Ten Mile River the coast extends in a general NW direction for 52 miles to Punta Gorda. This stretch of the coast is particularly bold and rugged, bordered by numerous rocks, and is heavily timbered as far as Point Delgada. N of Point Delgada the tops of the ridges are generally bare or only partly covered with trees and brush. The cliffs along the shore range from 40 to 100 feet in height. The high, rugged mountains in the vicinity of the coast, which reach elevations of 3,000 to 4,000 feet, are prominent.

(96) **Kibesillah Rock,** 1.2 miles N of Ten Mile River and 0.4 mile off the line of the cliffs, is the outermost danger for many miles N and S. It is small and washed over almost continuously even in ordinary weather. Other rocks and rocky islets up to 80 feet high are inside of Kibesillah Rock.

(97) **Bells Mountain,** 4.5 miles N of Ten Mile River and 0.5 mile inland, is bare on top with a few trees on the oceanside.

(98) **Switzer Rock,** 5.5 miles N of Ten Mile River and 0.3 mile offshore, is small with deep water close around it; every large swell washes over the rock. A covered rock marked by a breaker is 170 yards SE of Switzer Rock.

(99) **Gordon Hill,** 6.5 miles N of Ten Mile River, is bare to the summit and terminates seaward in 60-foot-high **Abalone Point,** which is bordered by low outlying rocks.

(100) **Hardy Rock,** 9.5 miles N of Ten Mile River and 0.4 mile offshore, is a small 47-foot-high islet.

(101) From Abalone Point the coast trends NW for 4 miles to **Cape Vizcaino,** which is a broad, irregular line of precipitous cliffs, 100 feet high, very broken, and bordered by low rocks, 200 to 300 yards offshore.

(102) **Island Knob,** a rocky lime-covered islet, lies close-to and almost connected with Cape Vizcaino. A covered rock marked by a breaker is 275 yards W of the islet. **Cottaneva Rock,** 20 feet high, is 500 yards SE of Island Knob and 275 yards offshore. Several smaller rocks lie inside of it and two others about 160 yards NW.

(103) **Cahto Peak,** 11.5 miles E of Cape Vizcaino, is prominent in clear weather.

(104) Between Cape Vizcaino and Point Delgada are several small exposed landings available for use only in the summer and in smooth weather. The landings formerly were used to ship ties, tanbark, and shingles which were loaded on vessels by means of wire cables.

(105) **Sea Lion Rock,** a mile N of Cape Vizcaino and 500 yards offshore, is 5 feet high and inhabited by sea lions. **Cottaneva Needle,** 0.5 mile N of Sea Lion Rock, is a prominent black pinnacle rock 55 feet high.

(106) **Double Cone Rock** is 3.5 miles N of Cape Vizcaino and 300 yards offshore.

(107) **Usal Rock,** 5 miles N of Cape Vizcaino, is 45 feet high and black in color. It lies 200 yards off a small point of rocks.

(108) The mouth of **Usal Valley** is about a mile N of Usal Rock, and is a narrow, steep gulch, in front of which is a small area of flat land with a low beach. A small grassy hillock is just inside the gulch. The view up the valley is open for a very short time while passing.

(109) **Big White Rock,** 95 feet high, lies 7.7 miles N of Cape Vizcaino, and 125 yards offshore from the steep cliffs, which are bordered by numerous rocks. The rock is a prominent feature when the higher points of the land are in fog.

(110) **Anderson Cliff,** 10 miles N of Cape Vizcaino, is a projecting rocky spur 715 feet high, with one large rock and numerous smaller ones close inshore. **Jackson Pinnacle,** 1.1 miles N of Anderson Cliff, is a black rock 45 feet high, so close to the rocky beach that from seaward it is hard to distinguish from the bluff behind it. When seen from along shore, it is prominent.

(111) **Cluster Cone Rock,** a prominent 68-foot pinnacle, is the largest and whitest of a small cluster of 6 rocks, 200 yards offshore, lying 12.5 miles N of Cape Vizcaino.

(112) **Morgan Rock,** a large white-topped, block-shaped rock 57 feet high and 0.5 mile NW of Cluster Cone Rock, shows prominently. It is the largest of a group of rocks extending some 200 yards from a high rocky cliff and is particularly valuable as a landmark when higher land is covered by fog.

(113) **Bear Harbor Ridge,** a detached coastal ridge about a mile NW of Cluster Cone Rock, has two peaks; the S one, 375 feet high, is the higher. It is the most prominent feature in this vicinity when viewed from the NW. The seaward face of the ridge is marked by steep, loose slides.

(114) **Needle Rock,** 46 feet high, is 14.5 miles N of Cape Vizcaino; the rock blends into the bluff from offshore. A group of

old mill buildings, a few houses, and an old landing platform about midway up the flat mark the abandoned landing.

(115) **Small White Rock,** 37 feet high, lies 5 miles N of Cluster Cone Rock and 4 miles S of Point Delgada. It is close inshore and just outside the low-water beach; once identified, this rock makes a valuable landmark.

(116) From just below Small White Rock to Point Delgada, the country is not timbered, but is covered with dense, low brush, which presents a uniform dark green appearance.

(117) A submarine ridge known as a **Tolo Bank** extends S from Point Delgada for about 7 miles. The depths are quite irregular; the least depth found is 9 fathoms.

(118) **Caution.–**The area just S of Shelter Cove is subject to slides which might deposit rocks along the shore.

(119) **Point Delgada,** 66 miles N of Point Arena, and nearly 20 miles S of Punta Gorda, is a cliff-faced plateau making out about a mile from the general trend of the coast. The seaward face of the plateau is a mile long and bordered by numerous rocks. A lighted horn buoy is 1.1 miles SW from the point, and a bell buoy is 0.8 miles SE from the point. A paved airplane landing strip, approximately 3,500 feet, is on the point.

(120) **Shelter Cove** lies under the S face of Point Delgada and affords fair shelter in NW weather, but is exposed and dangerous with S or SE winds. Occasionally a swell runs in the cove. There are no wharves in the cove. Water may be obtained ashore, but must be carried down from the plateau. A marine supply store is on the bluff on the W side of the cove. Gasoline, diesel fuel, lubricants, ice, marine supplies, and provisions are available. A launching ramp is at the head of the cove. Shelter cove is used extensively as an offshore moorage for fishing boats. A pump-out station and dry winter storage are at Shelter Cove. Local boat launch service monitors VHF-FM channel 68. A paved road is maintained to the cove. Telephone service is available.

(121) The rocks covered 1 to 5 fathoms S of Point Delgada can be avoided in approaching Shelter Cove by staying over 200 yards S of the lighted whistle buoy and E of the bell buoy.

(122) From Point Delgada the coast extends NW for 19 miles to Punta Gorda, and is backed by steep mountains covered with chaparral and trees. A black-sand beach, 0.8 miles N of Point Delgada, extends N for 4 miles. **Kaluna Cliff** overlooks the S end of the sand beach, and its steep face, scarred by frequent slides, is a noticeable landmark.

(123) **King Peak,** 4,090 feet high, the highest of three, is the well-known landfall generally called **Three Peaks.** It lies 8.5 miles N of Point Delgada, 2.5 miles from the coast, and in clear weather is visible seaward for about 75 miles.

(124) About 6 miles N from Point Delgada is the head of **Delgada Canyon,** a submarine valley; the 100-fathom curve lies within 0.5 mile of the beach. This valley extends in a N direction with an average width of 1 mile between the 100-fathom curves for 3.5 miles, and then expands, funnel-shaped, for 3 miles more. Over 400 fathoms are found at its mouth and 300 fathoms within 4 miles of the beach. The side slopes are steep.

(125) **Big Flat** is a narrow strip of low, flat land 7 miles NW of Point Delgada. It is 2 miles long and is bordered by sand beaches. A few abandoned ranch houses and barns are at the S end of the flat. **Shubrick Rock,** low and small, lies 300 yards off the S end.

(126) About 11.5 miles NW of Point Delgada is the head of **Spanish Canyon,** a submarine valley. The 100-fathom curve lies within 2 miles of the shore.

(127) In 1974, a rock awash was reported about 2.5 miles offshore, 14 miles NW of Point Delgada, in 40°10'25"N., 124°18'30"W.

(128) **Reynolds Rock,** 10 feet high, is 14.5 miles NW of Point Delgada. It is 550 yards offshore and, when seen from close inshore, appears as a double-headed rock over which the swell breaks in nearly all weather.

(129) **Rodgers Break,** 0.5 mile W of Reynolds Rock, is covered ½ fathom. This pinnacle rock lies 4 miles SE of Gorda Rock and 6.8 miles WNW of Big Flat; it seldom breaks and the top is occasionally seen in a heavy swell. A pinnacle rock covered 3 fathoms lies about 0.5 mile NW about the same distance offshore. It probably breaks in very heavy weather. This pinnacle, Rodgers Break, and the reported rock awash 14 miles NW of Point Delgada are the outermost known dangers in this stretch of the coast.

(130) From Reynolds Rock NW to Punta Gorda the shore is bordered by numerous rocks extending about 0.3 mile offshore. The sharp depression in the hills near the coast, caused by the gulch of **Cooskie Creek,** 3.5 miles S of Punta Gorda, is sometimes useful on dark nights to vessels close inshore in making the point from S.

(131) **Chart 18623.–Punta Gorda** is a high, bold, rounding cape, 83 miles NW of Point Arena and 11 miles S of Cape Mendocino. The seaward face rises to about 900 feet, 400 yards back from the beach, and terminates in a spur, 140 feet high, almost overhanging the sea. It is bare of trees except in the gulches. The gray rectangular structure of an abandoned lighthouse, 25 feet high, is S of the point. For over 1.5 miles N and about 2 miles S of the point, the beach is bordered by numerous rocks and shoals extending in some cases 0.6 mile offshore.

(132) The wind, sea, and currents off Punta Gorda are probably as strong as off any point on the coast; frequent and strong tide rips have been noted. Many times when the weather at Shelter Cove and even at Big Flat is clear and calm and the sea smooth, both the wind and the sea will pick up as Punta Gorda is approached, until just N of this point where strong breezes to moderate gales will be experienced. At other times clear weather S of this point will lead to fog N, or vice versa.

(133) **Gorda Rock,** 10 feet high and conical in shape, is 0.7 mile S of Punta Gorda and 0.6 mile offshore. A lighted whistle buoy is 300 yards SW from the rock.

(134) **Conical Rock,** 20 feet high, is 100 yards off the point, and another 20-foot rock is 350 yards N from it; these rocks have foul ground between them.

(135) From Punta Gorda to Cape Mendocino the hills back of the coast are lower than those S; they are bare of trees and bordered by stretches of low, narrow, sandy flats with a narrow, low-water beach. The outlying rocks are not more than 0.7 mile offshore until about 2.5 miles S of Cape Mendocino, where they extend offshore to Blunts Reef, 2.5 miles W of the cape. **Mattole Canyon,** a narrow submarine valley, is 3 miles N of Punta Gorda where the 100-fathom curve is about 1 mile from the beach. **Mendocino Canyon** is 4.5 miles S of Cape Mendocino where the 100-fathom curve is about 2 miles from the beach.

(136) **Christmas Rock,** covered 1¼ fathoms, is 0.9 miles NW of Punta Gorda.

(137) **Mattole River,** 2 miles N of Punta Gorda, is not navigable. The N 360-foot-high head is bare and the S head, about the same height, is partly covered with oak trees. A prominent sand dune is on the S side at the entrance to the valley. Another large

sand dune, 3.5 miles to the N, marks the N side of **McNutt Gulch** and should not be confused with the one at Mattole River.

(138) **Mattole Point** is 0.3 mile N of the river at the base of **Moore Hill. Sea Lion Rock,** 8 feet high, is 0.3 mile N of Mattole Point and 250 yards off the beach at the head of Mattole Canyon. A rock covered ½ fathom lies 0.4 mile NW of Mattole Point.

(139) A rock, 16 feet high, is the largest of a cluster of small rocks 0.5 mile offshore and nearly 4 miles N of Punta Gorda. **The Brothers,** 8 feet high, consist of two small rocks, close together, 800 yards offshore and 1.5 mile NNW of Sea Lion Rock. **Mussel Rocks,** 0.9 mile N of The Brothers, form a ledge that projects 400 yards from the shore.

(140) **Devils Gate Rock,** 20 feet high, lies nearly 2.8 miles S of Cape Mendocino and 0.5 mile offshore. It is low and pyramidal, with a smaller rock close under the NW face. A reef extends 200 yards W from the rock; numerous rocks lie inshore. A rocky shoal covered 3¾ fathoms lies 1.4 miles W of Devils Gate Rock.

(141) A rock which bares 1 foot is about 1.1 miles NNW of Devils Gate Rock and 0.8 mile offshore.

(142) **Steamboat Rock,** 30 feet high, lies 1.5 miles S of Cape Mendocino and 600 yards offshore. The upper part of the rock is white and the lower black, somewhat resembling a steamer with a low black hull and white upper works.

(143) **Cape Mendocino,** 185 miles N of San Francisco Bay entrance and 367 miles S of Columbia River entrance, is a mountainous headland, the famous landmark of the old Spanish navigators and the galleons from the West Indies. The cape is the turning point for nearly all vessels bound N or S. In view of the dangers in the vicinity, it should be approached with considerable caution in thick weather; the bottom and the currents are very irregular. It is in the latitude of great climatic change; the winds do not blow home so violently in the bight S of it, and the amount of rainfall increases rapidly to the N. Fog is more prevalent S. The strong NW winds of summer are less violent S of the cape, which forms a parallel lee for vessels working their way N.

(144) The seaward face of Cape Mendocino is steep, rocky, and water worn toward the shoreline. NE of the light the general appearance is rolling and grass-covered, except in the deep ravines and upon some of the steep hillsides where the N exposure is covered with forest or brush. For about 3 miles S of the cape, the beach is bordered by numerous rocks and sunken ledges extending in some cases to over 0.5 mile offshore.

(145) **Cape Mendocino Light** (40°26.4'N., 124°24.4'W.), 515 feet above the water, is shown from a post on the W slope of the cape. An abandoned lighthouse is 70 yards 298° from the light.

(146) **Sugar Loaf,** 326 feet high, is 250 yards W of Cape Mendocino and is connected with it at low water by a narrow neck of rocks and shingle beach. This rock is a prominent feature in making the cape from either N or S, but in thick or hazy weather care should be taken to avoid mistaking it for False Cape Rock, which it somewhat resembles, that is in a similar position off False Cape, 4.5 miles N of Cape Mendocino. False Cape Rock is about 216 feet high and is not so regular in outline as the Sugar Loaf, and, from the W or NW, shows two large rocks, 95 and 54 feet high, immediately inside it, whereas the Sugar Loaf stands solitary and compact. As seen from the SW, Sugar Loaf shows a cave on its SW face, extending about one-third the height of the rock.

(147) **Blunts Reef,** 2.9 miles W of Cape Mendocino Light, is one of the outermost visible dangers off Cape Mendocino. The reef consists of two small black rocks awash about 230 yards apart. **Blunts Reef Lighted Horn Buoy 2B** (40°26.4'N., 124°30.3'W.), replacing Blunts Reef Lightship, is an exposed location buoy (ELB) 1.7 miles WSW of the outer rock. The currents at the buoy are described in the Tidal Current Tables.

(148) The area as far W as Blunts Reef Lighted Buoy B and for about 4 miles N and S of Cape Mendocino includes dangerous rocks and covered ledges. Vessels should not attempt the passage between Blunts Reef Lighted Buoy B and the cape under any circumstances. A heavy W swell breaks even in 9 to 10 fathoms in this locality.

(149) From Cape Mendocino for 4.5 miles to False Cape, the coast is straight, bold, and bordered by a broad low-water beach.

(150) **False Cape** is a steep, bold headland, rising to a height of over 600 feet in less than 0.2 mile from the beach; it projects slightly from the general trend of the coast. It is covered with grass, but the gulches on its sides are wooded. The base of the cape is bordered by a narrow, low-water beach of shingle and sand. For about a mile on each side of the cape are numerous rocks and ledges, the outermost of which are about a mile from the beach.

(151) **False Cape Rock,** 216 feet high, lies 0.4 mile W of the cape; other rocky islets are between it and the shore. It is not as regularly shaped nor as high as the Sugar Loaf off Cape Mendocino, and the top is much flatter. A rock covered 1¾ fathoms lies 0.6 miles W of False Cape Rock. **Mussel Rock,** 7 feet high, is 0.8 mile N of False Cape Rock.

(152) **Chart 18620.–**N of False Cape the hills decrease in height; 4 miles beyond the cape is the beginning of a stretch of sand beach and dunes, broken only by Table Bluff and Buhne Point, that extend to Trinidad Head.

(153) **Centerville Beach,** 4 miles N of False Cape, is not prominent from seaward. A white cross is on the 120-foot bluff just S of Centerville Beach. A number of buildings, comprising the U.S. Naval Facility for oceanographic research, are on the bluffs 0.8 mile S of the village.

(154) **Eel River** empties 8 miles N of False Cape. This is a stream of considerable size and is occasionally entered by light-draft vessels, but the channel over the bar is continually shifting. The depth on the bar varies largely with the amount of water in the river, depending upon the character of the winter, and has been at times as much as 14 feet, but generally the depth is about 8 or 9 feet. The river is seldom entered except by fishing boats and other very small craft, and then only by those with local knowledge of the bar.

(155) **Eel Canyon** is a submarine valley extending in a NW direction. It comes to a head 10 miles NW of Cape Mendocino. Vessels are cautioned against mistaking this valley for one of those S of the cape.

(156) **Chart 18622.–Table Bluff,** 12 miles N of False Cape and 4.5 miles S of Humboldt Bay entrance, is a prominent feature from seaward. The W face is 0.5 mile long, 165 feet high, and very steep, and has a narrow sand beach under it.

(157) From Table Bluff for 4 miles to Humboldt Bay entrance the coast consists of a narrow sand spit.

(158) **Humboldt Bay,** 21 miles N of Cape Mendocino Light, is the first important harbor N of San Francisco and is used by vessels drawing up to 35 feet. Humboldt Bay is the second largest natural bay on the coast of California and as such contains many environmentally and economically important wetland habitats.

HUMBOLDT BAY

In addition to being a nursery area for many species of commercially and recreationally important fish and invertebrates, Humboldt Bay also produces more than 50 percent of the oysters harvested in California. Due to Humboldt Bay's location on the Pacific Flyway, it is also an important feeding, resting and nesting area for thousands of migratory shorebirds and waterfowl. Along Humboldt Bay's shoreline, thousands of acres have been set aside by State, Federal and local agencies as wildlife habitat for a variety of threatened and endangered species. Humboldt Bay can be used as a harbor of refuge in impending bad weather, providing a vessel can get inside before the bar becomes impassable. The bay consists of two shallow basins, South Bay in the S and Arcata Bay in the N part, connected by a narrow channel about 5 miles long. Due to the sensitive nature of Humboldt Bay's environment, extreme care should be taken to utilize all best management practices when transiting Humboldt Bay, fueling or transferring fuels or lubricants and transferring cargo.

(159) The redwood timber industry dominates Humboldt Bay. Large quantities of lumber and wood products are shipped to both foreign and domestic ports. General merchandise, gasoline, and fuel oil are received.

(160) Coast Guard Captain of the Port considers the following channels to be narrow channels or fairways for the purpose of enforcing the International and Inland Rules of the Road, Rule 9.

(161) a. Humboldt Bay Bar Channel.

(162) b. Humboldt Bay Entrance Channel.

(163) c. Fields Landing Channel.

(164) d. North Bay Channel.

(165) e. Eureka Channel; Outer and Inner Reaches.

(166) f. Samoa Channel.

(167) g. All other government maintained channels and turning basins.

(168) **Routes.–**A pilot should be engaged by deep-draft vessels and by strangers if there is any sea on the bar. Because the bar is subject to change, the entrance ranges may not always mark the deepest channel.

(169) **From S.–**From a position 1.5 miles 260° from Blunts Reef Lighted Buoy B, steer **356½°** for 5 miles, when Cape Mendocino Light bears 126°; thence a **038½°** course made good for 20 miles leads to Humboldt Bay Entrance Lighted Whistle Buoy HB. In thick weather, after passing False Cape Rock, all dangers will be cleared by keeping in a depth of over 15 fathoms until up with the lighted whistle buoy, where anchorage should be made until a pilot is obtained.

(170) **From N.–**From a position 3 miles W of Trinidad Head Light, a **187°** course, made good for 17 miles, leads to Humboldt Bay Entrance Lighted Whistle Buoy HB. In thick weather the depths should not be shoaled to less than 20 fathoms between Turtle Rocks and Trinidad Head and, when S of the head, the depths should not be shoaled to less than 15 fathoms until up with the lighted whistle buoy, where a vessel should anchor until a pilot is obtained.

(171) **From seaward.–**In clear weather the high land of Cape Mendocino and Punta Gorda S, and Trinidad Head N of the entrance, are good landmarks. At night, the lights are a good guide. In thick weather soundings should be taken frequently, and upon getting depths of 30 fathoms or less great caution must be exer-

cised until sure of the vessel's position, when the course should be shaped for the lighted whistle buoy.

(172) Sailing craft during the prevailing NW winds of summer should try to make the land in the vicinity of Trinidad Head; this gives a fair slant for the entrance and is an additional precaution against the irregular S set of the current. In thick weather soundings should be taken constantly when inside of 50 fathoms. Making the land N of the entrance avoids the irregular bottom and dangerous currents in the vicinity of Cape Mendocino.

(173) From the Humboldt Bay Entrance Lighted Whistle Buoy HB, make good a course of **105°** following the Humboldt Bay Approach Range to the intersection with Humboldt Bay Entrance Range, thence a course of **140°** on the entrance range into the bay. The entrance range parallels the S jetty and is only about 150 yards from it. The turn from the approach to the entrance range, 200 yards off the outer end of the S jetty, is rather abrupt and is difficult under certain conditions of wind, sea, and current. Inside the bay the channels are well marked by navigational aids.

(174) The approach to the bay is marked by a lighted whistle buoy and a bell buoy off the entrance, and approach range lights and a fog signal on the outer end of the North Spit. A light is shown near the seaward ends of the N and S jetties. The S jetty light has a fog signal. Range lights and lighted buoys mark the entrance channel inside the bar.

(175) **Note.–**The outer range should not normally be used beyond its intersection with the inner range. The inner range should not normally be used seaward of the outer end of the jetties. In 1973, it was reported that the inner range was difficult to distinguish in restricted visibility.

(176) Two jetties are at the entrance to the bay, 700 yards apart. The bar NW of the S jetty is subject to considerable shifting and shoaling at times, especially during the winter.

(177) In the past **Humboldt Bar** was considered treacherous and dangerous, and many disasters have occurred there. Even with present improvements, mariners are still advised to use extreme caution on the bar. The strong currents that may be encountered, and the abrupt turn at the outer end of the S jetty, are apt to be dangerous for strangers. The bar is the smoothest during the last of the flood current, and it is often passable at this time and impassable 2 hours later, when the ebb current has set in. Mariners are advised to contact Coast Guard Station Humboldt Bay on VHF-FM channel 16 or 22A prior to transitting the bar. Caution should also be exercised inside the jetties due to the rapid change in the channel conditions. Deep-draft vessels are usually taken in and out of the bay at high tide if there is any swell on the bar because of the shoaling in the entrance channel.

(178) **COLREGS Demarcation Lines.**–The lines established for Arcata–Humboldt Bay are described in **80.1150**, chapter 2.

(179) **Channels.–**Federal project depths for Humboldt Bay are 45 feet over the bar and in the entrance channel, thence 38 feet in North Bay Channel to Eureka, thence 35 feet in the Eureka Channel outer reach and 26 feet in the inner reach. Project depth in Samoa Channel, including the turning basin, is 38 feet, and in Fields Landing Channel leading to South Bay, including the turning basin, is 26 feet. Maintenance dredging is performed regularly. (See Notice to Mariners and latest chart edition for controlling depths.)

(180) **Prominent features.–Humboldt Bay Light** (40°45'54"N., 124°13'48"W.), 100 feet above the water and shown from a white column on North Spit, is the best landmark by night; the approach range rear light also is shown from the Humboldt Bay Light structure. By day the tall stacks and the smoke from the pulp mill in the bay can usually be seen. North Spit has clumps of trees along the bay shore near the channel while South Spit is barren. The red bluff at **Buhne Point** on the east shore of the bay and a lighted radio tower about 1.0 mile E are conspicuous in entering the bay. **Humboldt Bay Coast Guard Station** is inside the North Spit, 0.5 mile from the S end.

(181) **South Bay,** in the S part of Humboldt Bay, is about 3 miles long and 2 miles wide. A marked channel on the E side of the bay leads to a lumber wharf on the E side of the channel at **Fields Landing.**

(182) **Bucksport** is on the E shore about 3 miles above the entrance. The two oil piers at Bucksport are used mainly by barges.

(183) **Fairhaven** is a small town on the W shore, about 3.5 miles above the entrance. The pier of a pulp company is here.

(184) **Eureka,** the principal town on the bay, is on the E shore, 4 miles N of the entrance. It handles much of the waterborne commerce on the bay. Eureka is the terminus of the North Coast Railroad Co.; a branch of the railroad continues to Arcata and Samoa.

(185) **Samoa** is a small settlement on the W shore opposite Eureka, about 5.5 miles above the entrance. A large pulp mill here ships a considerable amount of pulp.

(186) **Arcata Bay,** the N part of Humboldt Bay, is about 3 miles in diameter with low, marshy shore cut by sloughs. **Arcata** is on the N shore of the bay. The town has no serviceable wharves. The ruins of several old wharves are near the head of abandoned Arcata Channel.

(187) **Anchorages.–**There are no authorized anchorages in Humboldt Bay. If obliged to anchor outside the bar, the best anchorage will be found S and W of the lighted whistle buoy in about 90 feet, sand and clay bottom.

(188) **Bridges.–**A fixed highway bridge crosses Humboldt Bay from Eureka to a point just above Samoa on the Samoa Peninsula. Clearances of the fixed spans are 40 feet from Eureka to Woodley Island; 30 feet from Woodley Island to Indian Island; and 45 feet from Indian Island to the Samoa Peninsula.

(189) **Tides.–**The mean range of tide at Eureka is 4.8 feet, and the diurnal range of tide is 6.7 feet. A range of about 11 feet may occur at the time of maximum tides. Daily predictions for Humboldt Bay (South Jetty) are given in the Tide Tables.

(190) **Currents.–**The tidal currents follow the general direction of the channels. In the main channel, the average velocity is less than 2 knots and the maximum does not exceed 3 knots. Between the jetties, the average velocity is about 2 knots, with a maximum of about 4 knots. Current predictions are given in the Tidal Current Tables.

(191) **Weather, Eureka.–**The climate of Eureka is completely maritime, and high humidity prevails the entire year, which is divided into the "rainy" season and the "dry" season. The rainy season begins in October and continues through April. About 90 percent of the year's precipitation falls during this period. The dry season extends from May through September and is marked by considerable fog or low cloudiness. On average, 23 of the 31 days in August will record fog where only 10 of the 31 days in March will note fog. Usually, however, the fog clears in the late forenoon and the early afternoons are generally sunny. On average, better than 38 inches (965 mm) of precipitation falls on an annual basis in Eureka and 152 of the 365 days of the year record some sort of precipitation. January is the wettest month and July, the driest. Snowfall is light and averages less than one-half inch annually (13 mm) however, snowfall has been recorded in each of

the months November through April. The greatest daily snowfall was two inches (51 mm) in February 1989.

(192) Temperatures are moderate the entire year. Although the highest ever recorded was 87°F (30.6°C) in October 1993, and the lowest 21°F (-6.1°C) in December 1972, the usual range is from a low of about 47°F (8.3°C) to a high of about 58°F (14.4°C). The daily range of temperature averages from about 10°F (-12.2°C) in the summer to 13°F (7°C) in the winter, and is occasionally not over 2° to 3°F (1° to 2°C).

(193) The principal industries are lumbering, fishing, and dairy farming. Owing to the low temperatures and lack of sunshine, there is very little truck farming, but the climate is nearly ideal for berries and flowers.

(194) The National Weather Service is on **Woodley Island.Barometers** may be compared there or by telephone. (See appendix for address.)

(195) See page T - 5 for **Eureka climatological table.**

(196) **Pilotage, Humboldt Bay.**–Pilotage is compulsory for foreign vessels under registry and U.S. vessels under registry and enrollment. Pilotage is voluntary for all other vessels.

(197) Pilotage for ports in Humboldt Bay is available from **Humboldt Bar Pilots Association**, P.O. Box 3555, Eureka, California 95502-3555.

(198) The pilots monitor VHF-FM channel 16. The pilot boat monitors VHF-FM channels 13 and 16, and the pilot office and tug boat use 13, 18, and 77 as working frequencies. The pilot boat, TUG KOOS KING, is 65 feet long and has a black hull, buff and white house, and red stack with a white K.

(199) Arrangements for pilots are made by ships' agents or by telephone through Westfall Stevedore Co., PHONE (707) 443-5688, FAX (707) 443-4672, cable WESTFALLEUREKA, VHF-FM channel 10. The operational status of the engines, draft, and estimated time of arrival are required within 24 hours and 4 hours of arrival. E-mail: westfall@northcoast.com.

(200) Pilots board vessels within 0.5 mile radius of Humboldt Bay Entrance Lighted Whistle Buoy HB (40°46.4'N., 124°16.2'W.) or 1.5 miles W of Humboldt Bay Entrance Jetties. When boarding, pilots request vessels maintain a speed not to exceed 5 knots and rig the pilot ladder on the leeward side about 3 meters above the water; no man ropes.

(201) In the summer, vessels are entered on flood and ebb tidal currents; in the winter, vessels usually are entered on the first or last of the flood or first of the ebb. Vessels depart on flood tidal currents only, regardless of the time of year. Vessels with drafts over 30 feet to 35 feet, enter or depart on the last of the flood from November through March 30; night sailing depends on the bar condition before dark.

(202) Pilots report that strong currents create a N set in the Bar Channel from October to April. When vessels enter the jetties, this current has a tendency to twist vessels by setting the stern N and turning the bow S toward the S jetty. During or shortly after SE, S, and SW storms, currents in the Bar Channel and Entrance Channel are reported to attain a velocity of about 4 to 5.5 knots. Heavy swells about 8 to 10 feet high occur well inside the jetties when seas from the SW are deflected, about midway along the N jetty.

(203) **Towage.**–Tugs up to 2,000 hp are available.

(204) Eureka is a **customs port of entry.**

(205) **Quarantine, customs, immigration, and agricultural quarantine.**–(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(206) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.) The city has several hospitals.

(207) **Coast Guard.**–Humboldt Bay Coast Guard Station is on North Spit.

(208) **Harbor regulations.**–These regulations are prescribed by the Humboldt Bay Harbor Recreation and Conservation District. The District operates a large marina on the S side of Woodley Island, just N of Eureka on the N side of Eureka Channel Inner Reach. A wharfinger, located at the Eureka Boat Basin, foot of Commercial Street, has jurisdiction over fishing and pleasure craft using the facilities at the city-owned boat basin.

(209) **Wharves.**–The deep-draft facilities at Humboldt Bay are alongside the channels leading to Arcata Bay and at Fields Landing in South Bay. Only the deep-draft facilities are described. The alongside depths for the facilities are reported; for the latest depths, contact the private operators. All facilities have direct highway connections, and most facilities have railroad connections. Water connections are available at most of the piers and wharves. Most of the piers and wharves are used in the shipment of forest and petroleum products and the receipt and shipment of fish.

(210) Chevron Products Co. Wharf (40°46'41"N., 124°11'42"W.): face, 400 feet with dolphins; 24 to 30 feet alongside, deck height, 10.5 feet; tank storage, 105,000 barrel capacity; receipt of petroleum products; owned and operated by Chevron Products Co.

(211) Sierra Pacific Industries Wharf (40°47'43"N., 124°11'11"W.): 470 feet long; 32 to 35 feet alongside; deck height, 10 feet; 15 acres of open storage; shipment of logs, lumber, and wood chips; owned by Eureka Forest Products, Inc. and operated by Sierra Pacific Industries, Inc. and Brusco Tug & Barge, Inc.

(212) Pacific Affiliates, Eureka Wharf (40°47'51"N., 124°11'08"W.): 1,000 feet of berthing space with dolphins; 35 feet alongside; deck height, 11 feet; 17 acres of open storage; receipt and shipment of conventional general cargo; owned by David L. Schneider and operated by Pacific Affiliates, Inc.

(213) City of Eureka, Humboldt Dock B (40°48'05"N., 124°10'55"W.): 200-foot-long wharf; 23 feet alongside; deck height, 11 feet; receipt of seafood; mooring for fishing boats; owned and operated by the City of Eureka.

(214) Louisiana-Pacific Corp., Samoa Chemical Wharf (40°48'13"N., 124°11'14"W.): 1,147 feet of berthing space with dolphins; deck height, 20 feet; storage tanks, 645,000-gallon capacity; receipt of caustic soda; owned and operated by Louisiana-Pacific Corp.

(215) Louisiana-Pacific Corp. Samoa Chip Export Wharf (40°47'55"N., 124°11'21"W.): 1,260 feet of berthing space with dolphins; 38 feet alongside; deck height, 20 feet; pneumatic chip loader, loading rate 1,200 tons per hour; shipment of wood chips; owned and operated by Louisiana-Pacific Corp.

(216) Fairhaven Terminal Co./Westfall Stevedore Co., Simpson Mill Wharf (40°47'19"N., 124°11'36"W.): 500 feet long, 700 feet of berthing space; 38 feet alongside; deck height, 15 feet; receipt and shipment of conventional general cargo and wood pulp; receipt of lumber; owned by Simpson Investment Co. and operated by Fairhaven Terminal Co./Westfall Stevedore Co.

(217) Humboldt Bay Forest Products (40°43'58"N., 124°13'05"W.): 600 feet long; 36 feet alongside; 50 acres of open

storage; receipt and shipment of logs, lumber, and wood chips; owned and operated by Humboldt Bay Forest Products, Inc.

(218) Fields Landing Wharf (40°43'23"N., 124°13'19"W.): 1,000 feet of berthing space; 18 to 26 alongside; deck height, 10 feet; travel lifts to 150 tons; mooring vessels and small craft for repairs; owned by Humboldt Bay Harbor, Recreation, and Conservation District.

(219) **Supplies.–**Humboldt Bay has no facilities for bunkering deep-draft vessels. Provisions, water, and marine supplies are available.

(220) **Repairs.–**Repair facilities for large vessels are not available in Humboldt Bay. Complete hull and engine repairs are available for small craft. Humboldt Marine Services has a lift of 150 tons. The largest marine railway, located on the W side of the channel opposite Eureka, and handle craft up to 300 tons, 110 feet long, 24 feet wide, and with a 12-foot draft.

(221) **Small-craft facilities.–**Transient berths with electricity are available at the marina on the S side of Woodley Island and at Eureka Boat Basin (40°48'14"N., 124°10'36"W.). Additional berthing space is available at marinas on Fields Landing and behind Buhne Point. Water, gasoline, diesel fuel, marine supplies, and launching ramps are available at most marinas in Humboldt Bay.

(222) Wet winter storage is at the marina at the S side of Woodley Island.

(223) **Chart 18620.–**N of the entrance to Humboldt Bay, the coast consists of sand dunes partly covered with timber for 11 miles to the mouth of **Mad River.** The first 7 miles forms the W shore of Humboldt Bay, and then the land behind the dunes is low and marshy as far as the river.

(224) From the mouth of Mad River, the sand dunes are 20 to 60 feet high and continue for 5.5 miles to **Little River,** a small shallow stream. The N point at the mouth of the stream is rocky, and from this point the coast consists of rocky cliffs extending beyond Trinidad Head.

(225) **Humboldt Bay Coast Guard Air Station** is at McKinleyville about 2.5 miles N of the mouth of Mad River.

(226) **Chart 18605.–Little River Rock,** 126 feet high, is 0.8 mile NW of the mouth of Little River, and 0.3 mile offshore. Several rocks and foul ground are between it and the beach, and a rock 4 feet high is about 100 yards NW.

(227) From Little River Rock to Trinidad Head, the shore is bordered by numerous rocks and ledges extending 0.3 mile offshore.

(228) **Pilot Rock,** 93 feet high, is 0.5 mile S of Trinidad Head. It is of small extent, conical, and whitish in color, rising abruptly from depths of 48 to 50 feet on all sides. Pilot Rock is marked on its W side by a gong buoy.

(229) **Trinidad Head** is nearly 39 miles NNE of Cape Mendocino and 17.5 miles N of the entrance to Humboldt Bay. It rises to a height of 380 feet. The sides are steep and covered with chaparral. From N or S the head is generally raised as a dark, round-topped island. Near the N end it is joined to the mainland by a narrow neck, from the S side of which **Little Head,** a rocky knoll 125 feet high, projects into Trinidad Harbor. The white cross 200 yards N of the S point of Trinidad Head is fairly prominent.

(230) **Trinidad Head Light** (41°03.1'N., 124°09.1'W.), 196 feet above the water, is shown from a 25-foot white square tower near the SW side of the head. A lighted whistle buoy is 1 mile W of the head. A fog signal is at the light.

(231) **Trinidad Harbor,** a small cove E of Trinidad Head, affords shelter in NW weather, but is dangerous in W or S weather. The cove is small and is further constricted by several rocks, and, as a rule, there is always a swell even in N weather. It is used by fishing boats to a considerable extent during the summer, even though the holding ground is only fair. A white lighthouse structure, a memorial containing the original oil-burning light used at Trinidad Head until 1948, is at the center of the bluff on the N side of the harbor. A pier with a fishhouse and restaurant is in the bight W of Little Head. Fish are unloaded at the pier and are trucked to Eureka and San Francisco. A small marine railway near the foot of the pier is used for launching and retrieving small craft up to 26 feet long and 9 feet wide. Gasoline and ice are available at **Trinidad,** a village on the N shore of the cove.

(232) **Prisoner Rock,** 220 yards E of Trinidad Head, is 42 feet high and the most prominent of the rocks in the cove. It consists of two rocks so close together that they are usually taken for one. From S they resemble an animal lying down with its head toward the W. A rock covered 7 feet is 150 yards NNW from them.

(233) **Flat Rock,** low and small, lies 350 yards ENE from Prisoner Rock; a rock covered 5 feet lies 150 yards SSE from it. A bell buoy is 175 yards W of a rock covered 9 feet, which lies 400 yards SSE of Prisoner Rock.

(234) The best anchorage is in 42 feet, muddy bottom, about halfway between Prisoner Rock and Trinidad Head, with Flat Rock, bearing 073°, just open S of Prisoner Rock. A **special anchorage** is on the E side of Trinidad Head. (See **110.1 and 110.127c**, chapter 2, for limits and regulations.)

(235) **Blank Rock,** 111 feet high, lies 0.3 mile W of Trinidad Head. Foul ground is between it and the head. A smaller rock is 150 yards N of Blank Rock. A rock awash and a ledge covered 15 feet are 275 yards SSE of Blank Rock.

(236) **Flatiron Rock,** 72 feet high, lies 0.3 mile NW of Blank Rock. It is considerably larger than Blank Rock, with two rocky heads of about the same height. A covered rock lies 300 yards off its SW face, and numerous ledges extend SE toward the head.

(237) **Chart 18600.–**From Trinidad Head for 5.5 miles to Rocky Point, the coast is rocky, with numerous outlying islets and ledges extending as much as 1.2 miles offshore and cliffs reaching elevations of over 100 feet. The mountains back of Trinidad Head are good landmarks for vessels approaching from seaward. N of Rocky Point, the beach is low and sandy, with several lagoons behind it, for nearly 11 miles to the S end of the Gold Bluffs. From this point to Point St. George, the coast is rocky, the cliffs being from 100 to 500 feet high and bordered by numerous rocks. The Klamath River breaks through the cliffs 16 miles S of Point St. George. From Point St. George for 65 miles to Cape Blanco, the coast trends in a general NW direction with a shallow bight known as Pelican Bay immediately N of Point St. George. The beach is fringed by numerous rocks and ledges, but, with the exception of St. George, Rogue River, and Orford Reefs, these in general do not extend over a mile from shore. The 30-fathom curve follows the general trend of the coast, and in thick weather may be considered as the limit inside of which it is unsafe to approach, but in the vicinity of St. George, Rogue River, and Orford Reefs, the depths should not be shoaled to less than 50 fathoms.

(238) **Green Rock,** 108 feet high and of small extent, lies 1.5 miles N of Trinidad Head and nearly 600 yards offshore. The top

is covered with grass. Numerous rocks lie inshore, and a rock awash lies 700 yards W of it. A rock covered 3 fathoms lies 0.5 mile W of Green Rock. It seldom breaks and rises abruptly from 15 fathoms. Two covered rocks lie 0.5 and 0.8 mile NNE of Green Rock.

(239) **White Rock,**118 feet high, lies 1.9 miles N of Trinidad Head. It is of small extent and is 250 yards off a wooded projecting head about the same height. Another rocky islet 129 feet high is 1 mile N of White Rock.

(240) **Cone Rock,** 17 feet high, is 3.8 miles N of Trinidad Head and over 1 mile offshore. It is conical in shape and of small extent. A smaller rock, 15 feet high, lies 0.5 mile E.

(241) **Turtle Rocks,** two rocks of small extent 20 and 29 feet high, are 1.5 miles N of Cone Rock and abreast of Rocky Point. E of Turtle Rocks the ground is foul, with two breakers 600 and 800 yards from the outer rock and numerous visible rocks extending to the beach. A bell buoy is 0.5 mile W of Turtle Rocks.

(242) **Rocky Point,** 5.5 miles N of Trinidad Head, is a bold feature with cliffs about 200 feet high, bordered by numerous rocks and ledges extending 200 to 300 yards offshore. The point is covered with oak and scrub pine for 0.5 mile back to the redwood forest; through this oak growth two rocky pinnacles about 250 feet high are visible.

(243) **Rodgers Peak,** 2,800 feet high and 6.3 miles E of Rocky Point, is heavily wooded and easily identified.

(244) N of Rocky Point the cliffs are succeeded by a low sandy beach for 4.5 miles to the N end of **Big Lagoon,** which is immediately behind the sand beach. Above Big Lagoon the cliff formation is resumed and extends 2 miles to **Stone Lagoon.**

(245) **Sharp Point,** 6.2 miles N of Rocky Point, is a sharp-pointed conical rock cliff about 400 feet high. Its light-gray color makes it readily distinguishable for a distance of 15 miles in clear weather from any direction. The beach in this area is bordered by numerous rocks extending about 0.8 mile offshore.

(246) **Gold Bluffs,** a 9-mile stretch of gravel and sand 100 to 500 feet high, begin about 9 miles N of Rocky Point. The S part is comparatively low and bordered by several outlying rocks; in about the middle the buffs are broken by two valleys.

(247) **Mussel Point,** 11.2 miles N of Rocky Point, is a light gray cliff about 300 feet high, with a small, flat top distinguishable at 10 to 12 miles in clear weather.

(248) **Reading Rock,** 94 feet high and of small extent, is 4.5 miles offshore W of Mussel Point. It is dark for about one-third the height and white above with a cleft on the S face. It rises abruptly from depths of 20 fathoms and can be approached close-to with safety. It is marked by a light, 98 feet above the water, shown from a house with a red and white diamond-shaped daymark; a fog signal is at the light.

(249) N of Gold Bluffs the coast becomes rocky, irregular, and broken, the bold cliffs being bordered by many rocks.

(250) A yellow clay slide extending from the top of a 900-foot slope to the beach is 9 miles N of Mussel Point. It is sharp at the top, broad at the base, and the highest and most prominent of the bluffs in that vicinity. It may be seen in clear weather for a distance of 15 to 18 miles.

(251) **Split Rock** is a slightly projecting head 3.5 miles N of the N end of Gold Bluffs; it is so named because of the cut on the N face.

(252) **High Bluff** is a slightly projecting head 0.8 mile N of Split Rock. It is prominent because of an enormous split or chasm on its N face; at the S edge of the cut the bluff is 340 feet high.

(253) **White Rock,** 107 feet high, lies 600 yards N of High Bluff and 300 yards offshore. Numerous rocks, covered and visible, lie between it and the beach. Its S face is very precipitous, and its W face is steep, sloping N. It can be distinguished by its color for several miles.

(254) **Flint Rock Head,** 177 feet high, is a detached rocky head connected with the cliffs by a low sandspit. It is at the S end of the Klamath River sand beach, 1.8 miles N of Split Rock. Its SW face is precipitous. A rock awash lies 0.6 mile NW from Flint Rock Head and 0.5 mile offshore.

(255) **Klamath River** mouth is 16 miles S of Point St. George and 30 miles N of Trinidad Head. It is a large river draining an extensive mountainous area. The entrance is no longer navigable, but there is small-craft traffic on the river. There are several float landings where sport fishing craft berth. Gasoline, water, ice, launching ramps, and marine supplies are available.

(256) The coast highway crosses the river at **Klamath,** a small town 2 miles inland. A fixed highway bridge, 3 miles above the mouth, has a clearance of 13 feet.

(257) **Requa** is a small village on the N shore of the river just inside the mouth with a hotel and private landings.

(258) **Red Mountain,** 8 miles E of the mouth of Klamath River, is visible for about 60 miles in clear weather.

(259) From the mouth of the Klamath River the coast curves NW for 3 miles to the mouth of **Wilson Creek**. The cliffs are high, irregular, and jagged, and the hills above are covered with grass and chaparral. Numerous rocks extend about 300 yards offshore.

(260) A covered rock 0.6 mile offshore is 1.4 miles NW of the mouth of Klamath River. A rock, 37 feet high, is 1 mile offshore, 2.6 miles NW of the mouth of Klamath River, and about 1.5 miles S of Wilson Creek.

(261) **False Klamath Rock,** 203 feet high, reddish, and round-topped, is the most prominent rock on this part of the coast. It lies 650 yards W of the S point of the small cove into which Wilson Creek empties. **Wilson Rock,** awash, is 0.5 mile W of False Klamath Rock. A rock awash is 0.9 mile NW of False Klamath Rock. Numerous covered rocks lie E and NE of the line from this rock to another rock, 37 feet high, SW of False Klamath Rock.

(262) From False Klamath Rock for 7 miles N the coast consists of bold rocky cliffs, much broken and bordered by numerous covered and exposed rocks. Beyond these, extending 3 miles to Crescent City, is a broad sand beach backed by flat cultivated land.

(263) **Midway Point,** 4 miles N of False Klamath Rock, is bold, rising to a height of 820 feet, 800 yards from the beach.

(264) **Sister Rocks,** a cluster of prominent rocks, 0.5 mile W of Midway Point, consist of three large and several smaller rocks covering a limited area; the outer one is 69 feet and the inner one 72 feet high.

(265) **Chart 18603.–Crescent City Harbor,** protected by breakwaters, is midway between San Francisco Bay and the entrance to Columbia River. Commercial and sport fishing boats operate out of the harbor. Waterborne traffic in the harbor is in the receipt of gasoline and fuel oils. **Crescent City** is on the N side of the harbor.

(266) **Crescent City Entrance Light** (41°44'11"N., 124°11'28"W.), 55 feet above the water, is shown from a pile at the seaward end of the W breakwater. A fog signal is at the light.

CRESCENT CITY HARBOR

A historic private light is on the islet S of **Battery Point.** The entrance to the harbor is marked by a lighted range and by buoys.

(267) The entrance range should not be followed past a point approximately abeam of Whaler Island, as it leads close to the end of the breakwater extending N from this island.

(268) **COLREGS Demarcation Lines.**–The lines established for Crescent City Harbor are described in **80.1152**, chapter 2.

(269) In January 2002, the controlling depths were 13.8 feet in the left half and 11 feet in the right half of the outer harbor channel to the basin N of Whaler Island; thence in 1995-February 2000, 7 to 10 feet in the basin.

(270) The W breakwater gives good protection from NW winds for vessels anchored in the outer harbor, but the harbor is open to the S. The basin N of **Whaler Island** provides excellent anchorage for small craft.

(271) Vessels anchored in the harbor should take precaution against a local SE wind known as the **kick back** or **back draft**, which frequently blows with considerable violence. This wind follows only periods of strong NW winds outside. It usually starts in the early afternoon and ends about midnight.

(272) **Caution.** –Care should be exercised in approaching Crescent City Harbor because of the many rocks and shoals. **Chase Ledge,** covered 21 feet, lies 0.9 mile S of Round Rock. **Mussel Rock,** only a few feet high, is 0.6 mile SE of Round Rock; a rock covered 7 feet, 700 yards to the S, breaks only in a heavy swell. Other covered rocks extend N to Whaler Island. Foul ground with many bare and covered rocks extends nearly a mile offshore along the low but rocky coast NW of Crescent City Harbor for 3.5 miles to Point St. George. This area should be avoided.

(273) The long wharf in the W part of the harbor is used by fishing vessels to offload fish. The remains of two other wharves, just E, were almost completely wiped out by the seismic sea wave which struck the harbor following the March 27, 1964, Alaska earthquake. The seismic wave caused considerable damage and changes to the harbor shoreline.

(274) The basin just N of Whaler Island is formed by the inner breakwater extending NW from the island and the sand barrier from the island to the E shore. Citizens Dock, the Y-shaped pier at the N side of the harbor, extends out to a depth of about 13 feet. Several fishhouses are on the pier. Fishing boats unload their catch along both of the outer spurs of the pier. Water and ice are available on the pier. Gasoline and diesel fuel are available. Many mooring floats for commercial fishing boats are in the inner basin N of Citizens Dock. Berths with electricity, gasoline, diesel fuel, water, ice, wet and dry winter storage, a pump-out station, a launching ramp, and marine supplies are available.

(275) The **harbormaster** with an office at the basin N of Whaler Island assigns berths. He monitors VHF-FM channels 9 and 16, Monday through Friday from 0500 to 2100.

(276) A boatyard in the basin has lifts that can handle boats up to 110 feet, 270 tons. Engine repairs are available from several local firms.

(277) A Coast Guard vessel is stationed in the basin N of Whaler Island.

(278) The inner small-craft basin just N of Citizens Dock can accommodate about 500 boats. In January 2002, the controlling depths were 8.7 feet (12.3 feet at midchannel) in the entrance channel to the basin.

(279) **Castle Rock,** 2.3 miles NW of Battery Point and 0.5 mile S of the S point of Point St. George, has a rather flat top, with a small knob near the E edge.

(280) **Point St. George,** 3 miles NW of Battery Point, is low with several irregular and rocky hillocks near the beach. The seaward face is about a mile long in a NW direction, with sand dunes and low land immediately behind it. The tree line is about 0.6 mile inland, with a few trees near the S end of the point. Numerous conspicuous rocks fringe the point up to 0.5 mile offshore. **Brown Rock,** 28 feet high, is near the outer end of the exposed rocks extending NW from the point.

(281) **St. George Channel,** over a mile wide, is clear between the visible rocks fringing Point St. George and the E rocks of St. George Reef. It is frequently used in clear weather by coastwise vessels.

(282) **St. George Reef** is composed of rocks and covered ledges extending 6.5 miles NW and W from Point St. George. Nine visible rocks are in the group.

(283) **St. George Reef Lighted Horn Buoy 2SG** (41°50'14"N., 124°23'11"W.), is about ½ mile W of **Northwest Seal Rock** and Little Black Rock, the outermost rocks of St. George Reef.

(284) **Star Rock,** the SE rock of the group, is 64 feet high. It is 1.7 miles W of the S tip of Point St. George. Between Star and Northwest Seal Rocks are three rocks, **Hump Rock, Whale Rock,** and **Southwest Seal Rock,** almost in line, varying in height from 18 to 45 feet. S of these visible rocks are two covered ledges, **Mansfield Break,** and **Jonathan Rock.** The latter is 2.5 miles NW of Star Rock and 3.2 miles SE of Northwest Seal Rock. It breaks only in a heavy swell, and not continuously then; deep water surrounds it. Mansfield Break lies 2.3 miles S of Northwest Seal Rock and nearly 3.5 miles NW of Star Rock. It is about 100 yards in extent, with 20 fathoms close-to and around it.

(285) **Great Break,** 0.5 mile SE of Southwest Seal Rock, is about 150 yards in extent. A covered ledge that breaks at low water is 125 yards SW of Southwest Seal Rock.

(286) **Dragon Channel,** which leads N of Jonathan Rock and between Mansfield Break and Great Break, is not recommended.

(287) **East Rock** and **Long Rock** are 2.1 and 1.6 miles, respectively, N of Star Rock. On this line, and 1 mile N from Star Rock, is a rock visible at lowest tides; 0.3 mile SE from this rock is a rocky patch covered 15 feet, in which a rock covered 5 feet has been reported.

(288) **Flat Rock** lies nearly midway between Long and Whale Rocks, and about 0.6 mile from the former. **Mussel Rock** is nearly 0.5 mile W of Long Rock; a covered ledge showing a breaker is 200 yards N of the rock. A covered rock that breaks in moderate swells is 330 yards NE of Hump Rock.

(289) All the rocks of St. George Reef rise abruptly; soundings made in the vicinity give no warning of their presence. In thick weather, the greatest caution should be observed and the reef given a wide berth.

(290) **Chart 18600.**–For about 10 miles N of Point St. George, the shores of **Pelican Bay** are composed of sand dunes, with a broad beach extending to the mouth of **Smith River. Lake Talawa** and **Lake Earl** are surrounded by low marshy land behind this stretch of dunes.

(291) A small rock about 10 feet high is 1.8 miles S of the mouth of Smith River, and nearly 0.5 mile offshore. A cluster of three low rocks is nearly a mile offshore and 0.9 mile NNE of the 10-foot rock.

(292) **Chart 18602.**–From Smith River for 3.2 miles to the California-Oregon boundary, the coast is composed of low rocky cliffs, bordered by numerous rocks and ledges, covered and awash, and backed by a low narrow tableland. Several prominent rocky knolls rise from 100 to 200 feet above this tableland.

(293) **Pyramid Point,** a rocky knoll 222 feet high, marks the N point of Smith River.

(294) **Prince Island,** of small extent and 171 feet high, lies 0.1 mile offshore abreast Pyramid Point. **Hunter Rock,** 177 feet high, double-headed and somewhat smaller, is 0.3 mile N of Prince Island. Several other smaller rocks are in the vicinity.

(295) **Cone Rock,** 1.3 miles N of Prince Island and 0.6 mile offshore, is the most prominent of the visible dangers in this vicinity. It is 68 feet high and of small extent.